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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/751,217	12/31/2003	Yao Ding	LUID309	1186

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EXAMINER

PATEL, NITIN

ART UNIT PAPER NUMBER

2629

DATE MAILED: 09/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/751,217	Applicant(s) DING, YAO	
	Examiner Nitin Patel	Art Unit 2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 December 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The drawings are objected to under 37 CFR 1.83(b) because they are incomplete. 37 CFR 1.83(b) reads as follows:

When the invention consists of an improvement on an old machine the drawing must when possible exhibit, in one or more views, the improved portion itself, disconnected from the old structure, and also in another view, so much only of the old structure as will suffice to show the connection of the invention therewith.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specifically in fig. 1 system (100) it is not clear what system is part of the pointing device (140) and also circuit 200 in fig.2 is which part of the system either system by

Art Unit: 2629

itself or it is part of the pointing device same with fig.3 and 4 it is not clear which figured based on those steps of method and state transition diagram.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-25 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for in a system including a pointing device, the system having an inactive state and active state it is not clear which system or pointing device having the sensor, does not reasonably provide enablement for. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to the invention commensurate in scope with these claims. It is not clear from the figure and as well as claims how the invention was drawn out and claimed.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-25 are rejected under 35 U.S.C. 102(e) as being anticipated by Arrigo et al., (U.S. patent No. 6,781,570).

As per claim 1, Arrigo shows a pointing device (a wireless device in Abstract) having an inactive state and an on state (switch 150 a in fig.1a for the on and off purpose) comprising as set of least one sensor (in fig. 1a element 115 an optical sensor) associated with the pointing device; an on-off circuit coupled to the on-off circuit responsive to triggering event involving any of those sensors (in fig.1a element 150); a regulator (in fig.1a element 140) coupled to the on-off circuit (connected to the switch) responsive to a signal from the on-off circuit and capable of being turned on or off in response to that signal; an operational circuit(in fig.1a element 120 read as an operational circuit) to the on-off circuit to the set of at least one sensor and to regulator(In fig.1a element 140), the operational circuit being responsive to whether the regulator is on or off, wherein the operational circuit can determine which one or more of the set of sensor is involved in any such triggering event; wherein the system consumes substantially no power in its inactive state and operates normally in its on state(in col.4 lines 35-45).

As per claim 2, Arrigo shows circuits consumes no more than about 1.5 micro amps when regulator is in its inactive state; the on-off circuit, the regulator, the operational circuit (in col.11 lines 10-20).

As per claim 3, Arrigo shows each sensor of the set is coupled to an identifiable resistor, a sensor signal indicative of a voltage drop across that identifiable resistor, a

sensor signal indicative of a voltage drop across that identifiable resistor being coupled to the operational circuit (in fig.1b element 125).

As per claim 4, Arrigo shows wherein at least one sensor of the set includes at least one of button, pressure switch and a proximity circuit (in fig.5 lines 43-47).

As per claim 5, Arrigo shows the on-off circuit includes a bias element coupled to the set of sensors and providing substantially less than the full power output of the regulator; each sensor of the set of sensors being coupled to a distinguishable input of the operating circuit and a switch coupled to the bias element responsive to such a triggering event and generating a signal from each of the sensor to the operating circuit (in fig.1b and in col.8 lines 38-60).

As per claim 6, Arrigo teaches the on-off circuit is responsive to a turn-off signal from the operational circuit and capable of being turned off in response to that turn-off (in fig.1b element 150 and element 125).

As per claim 7, Arrigo also teaches the system includes a shut down state the system entering the shut down state in response to the operational circuit having detected one of the sensors having been associated with such a triggering event for at least a known time duration (In fig 1a element 140 a power regulator read a s a trigger event).

As per claim 8, Arrigo shows the system includes an idle state, the system entering the idle state in response to the operational circuit having detected none of the set of one or more sensors having been associated with such a triggering event for known time duration (in fig.1a and in col.8 lines 23-37).

As per claim 9, Arrigo shows a pointing device having a plurality of sensors, including a power source; a regulator coupled to the power source; an operational circuit coupled to the regulator; a first sensor and a second sensor, each coupled to the operational circuit and an on-off circuit coupled to the regulator, the first sensor and the second sensor wherein the on-off circuit has an inactive state and active state; the on-off circuits uses substantially no energy in its inactive state; the on-off circuits is capable of a transition from its inactive state to its active state in response to either the first sensor or the second sensor and the on-off circuit is capable of distinguishing, substantially immediately upon transition from the inactive state, whether that transition was response to the first sensor or the second sensor (in fig.1a and 1b).

As per claim 10, Arrigo shows the regulator has an inactive state and active state; the on-off circuit is capable of changing the regulator from its inactive state to its active state and the regulator uses substantially no energy in its inactive state (in fig.1a element 140).

As per claim 11, Arrigo shows the on-off circuit is coupled to the operational circuit and the on-off circuit is responsive to a signal from the operational circuit, wherein the on-off circuit is capable of transitioning from its active state to its inactive state in response to that signal (in fig.1a).

As per claim 12, Arrigo shows the on-off circuit is coupled to the power source (element 145 in fig.1a).

As per claim 13, Arrigo shows in a system a pointing device having a set of one or more sensor, a method of operating that system, including steps of: receiving a

Art Unit: 2629

relatively low voltage the relatively low voltage being substantially less than a normal regulated voltage but being sufficient to generate current in response to a triggering event involving any one or more of a plurality of sensors; responsive to such a triggering event, generating a normal regulated voltage; coupling each of the sensors to an operating circuit, whereby the operating circuit generates in response to the normal regulated voltage, a signal indicative of which sensor was involved in the triggering event (in col.6 lines 49-64).

As per claim 14, Arrigo shows the steps of generating includes steps of altering a state of a switch in response to the triggering event and completing a circuit including that relatively low voltage and that switch whereby a regulator receives a turn on signal.

As per claim 15, the steps of receiving include steps of coupling a bias element from a power source to an output of a regulator while that regulator is off (in fig.1a).

As per claim 16, Arrigo shows the steps of coupling includes steps of coupling each of the sensor between the relatively low voltage and a corresponding resistor; coupling each of the corresponding resistors to common node whereby the triggering event presents at least some current to the common node; altering a state of a switch in response to that current whereby that current presents a detectable voltage across the one resistor corresponding to which sensor was involved in the triggering event (inherently teaches in fig.1a in a power regulator circuit and part of) .

As per claim 17, Arrigo shows a pointing device having a set of one or more sensors a circuit including a relatively lower voltage the relatively low voltage being substantially less than a normal regulated voltage hereby an operational circuit

consumes substantially no power in response to the response to the relative low voltage; wherein each of the set of one or more sensors is coupled to the relatively low voltage and is coupled to an identifiable resistive element, whereby the relative low voltage generates a turn –on current through one of the identifiable resistive elements in response to a triggering event involving any of the set of one or more sensors; a regulator coupled to that turn on current the regulator being responsive to that turn on current to turn on and provide the normal regulated voltage; coupling each of the identifiable resistive elements to an operating circuit whereby the operating circuit generates in response to the normal regulated voltage, a signal indicative of which sensor was involved in the triggering event (in col.10 lines 35-54).

As per claim 18, Arrigo shows the relatively low voltage has the effect of providing a current of about 0.5 micro amps when none of the sensors are triggered (in col.11 lines 10-20).

As per claim 19, Arrigo shows a circuit including a power source; a bias element; a switch corresponding to each sensor, the switch being closed when the sensor is triggered and open when the sensor is not triggered; a resistive element corresponding to each such switch; an operational circuit coupled to each such resistive element; a node coupled to a plurality of those resistive elements and an on-off element responsive to a voltage at that node whereby the on-off elements is responsive to any of the sensors being triggered and a voltage drop across an identifiable one of the resistive elements allowing the operational circuit to generate a signal indicative of which one of the sensor was triggered (in fig.1a and 1b).

As per claims 20-25, Arrigo shows the set includes more than one sensor and the pointing device is a non-marking device and a marking device and the set includes more than one sensors (in fig.1a).

Conclusion

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nitin Patel whose telephone number is 571-272-7677. The examiner can normally be reached on 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin H. Shalwala can be reached on 571-272-7681. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Nitin Patel
Examiner
Art Unit 2629



Application/Control Number: 10/751,217
Art Unit: 2629

Page 10